

# CALATHEA RUBRIBRACTEATA, A NEW ENDEMIC SPECIES OF MARANTACEAE FROM COLOMBIA

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## ABSTRACT

***Calathea rubribracteata*** H. Kenn. endemic to Dept. Valle de Cauca, Colombia, is described as new. It is similar in aspect to the Ecuadorian species *C. neillii* H. Kenn., *C. fredii* H. Kenn., *C. cofaniorum* H. Kenn. and *C. shishicoensis* H. Kenn. and to the Colombian species *C. trianae* L.B. Sm. & Idrobo and *C. timothei* H. Kenn. with several basal leaves and a single cauline leaf or bladeless sheath subtending an inflorescence of bright red or rose-pink bracts. *Calathea rubribracteata* differs from *C. trianae*, *C. neillii*, and *C. fredii* in the spirally arranged vs. distichous bracts and relatively wider leaf blades (length:width ratios 3.03–3.58:1 vs. 3.55–7.45), from *C. timothei* by the fewer bracts (6–11 vs. 40–ca. 100) and the usually 3 vs. 7 minor veins between the major veins and from *C. shishicoensis* by the relatively narrower leaf blades (length:width ratios 3.03–3.58:1 vs. 1.33–1.75:1) and yellow vs. pale pink flowers.

## RESUMEN

***Calathea rubribracteata*** H. Kenn. endémica del Depto. de Valle de Cauca, Colombia, es descrita como nueva especie. Ella es similar en aspecto a las especies *C. neillii* H. Kenn., *C. fredii* H. Kenn., *C. cofaniorum* H. Kenn. y *C. shishicoensis* H. Kenn. de Ecuador y *C. trianae* L.B. Sm. & Idrobo y *C. timothei* H. Kenn. de Colombia que tienen varias hojas basales y solo una hoja caulinar o una vaina sin lámina foliar que subtiende una inflorescencia con brácteas rojas o rosadas brillantes. *Calathea rubribracteata* se distingue de *C. trianae*, *C. neillii* y *C. fredii* por sus inflorescencias con brácteas espiraladas vs. dísticas y las hojas relativamente más anchas (la relación largo/ancho es 3.03–3.58:1 vs. 3.55–7.45), de *C. timothei* por las pocas brácteas (6–11 vs. 40–ca. 100) y con la lámina foliar que lleva generalmente 3 vs. 7 venas menores entre las venas mayores, y de *C. shishicoensis* por las hojas relativamente más estrechas (la relación largo/ancho es 3.03–3.58:1 vs. 1.33–1.75:1) y las flores amarillas vs. rosado pálidas.

Both Colombia and Ecuador have a rich diversity of Marantaceae. Collecting in the montane forests in both countries have yielded some interesting new, red-bracted species of *Calathea*. There are currently 69 species of *Calathea* recognized for Ecuador (Kennedy 2013, 2014), but so far only 49 described species are recorded for Colombia. With such diversity and additional collections and herbarium work, the number should soon equal that for Ecuador as at least ten more species are known but as yet undescribed, including the one herein. As with *C. trianae* and *C. timothei* from Colombia, and *C. neilli*, *C. fredii*, *C. cofaniorum* and *C. shishicoensis* from Ecuador, this new species, with its attractive bright red bracts, would make an excellent ornamental species.

## TAXONOMIC TREATMENT

***Calathea rubribracteata*** H. Kenn., sp. nov. (**Fig. 1**). TYPE: COLOMBIA. VALLE DEL CAUCA: Km 18 y Km 20 de la carretera de Cali a Buenaventura entrando por la finca Zingara, cumbre de la cordillera occidental, selva clímax andina, nublada y húmeda con abundante capote, relictus de las selva nublada y bastante intervenida antropogénicamente, 1500–2000 m, 03°28'N, 76°35'W, 28 Feb 1988, I. Cabrera & H. van der Werff 15829 (HOLOTYPE: MO 3765450).

Haec species a *Calathea neillii* H. Kenn., *C. fredii* H. Kenn. et *C. cofaniorum* H. Kenn. bracteis spiraliter dispositis (vs. distichis) atque lamina foliari pro ratione latiore (longitudinis cum latitudine proportionem 3.03–3.58 vs. 4.80–7.45), a *C. trianae* L.B. Sm. & Idrobo inflorescentia turbinata (vs. rectangulari; longitudinis cum latitudine proportionem ca. 1.2 vs. 6.00–7.33), a *C. timothei* H. Kenn. bracteis paucioribus (6 ad 11 vs. 40 ad ca. 100) atque venis minoribus plerumque 3 (vs. 7) inter majores, a *C. shishicoensis* H. Kenn. lamina foliari pro ratione angustiore (longitudinis cum latitudine proportionem 3.03–3.58 vs. 1.33–1.75) atque floribus flavis (vs. pallide roseis) differt.

**Plants** rhizomatous, caulescent, herbs, 35–60 cm high; stem green, internodes between basal leaves sericeous, uppermost, elongate, portion glabrous; cataphylls appressed tomentose, more densely so at apex, margins and

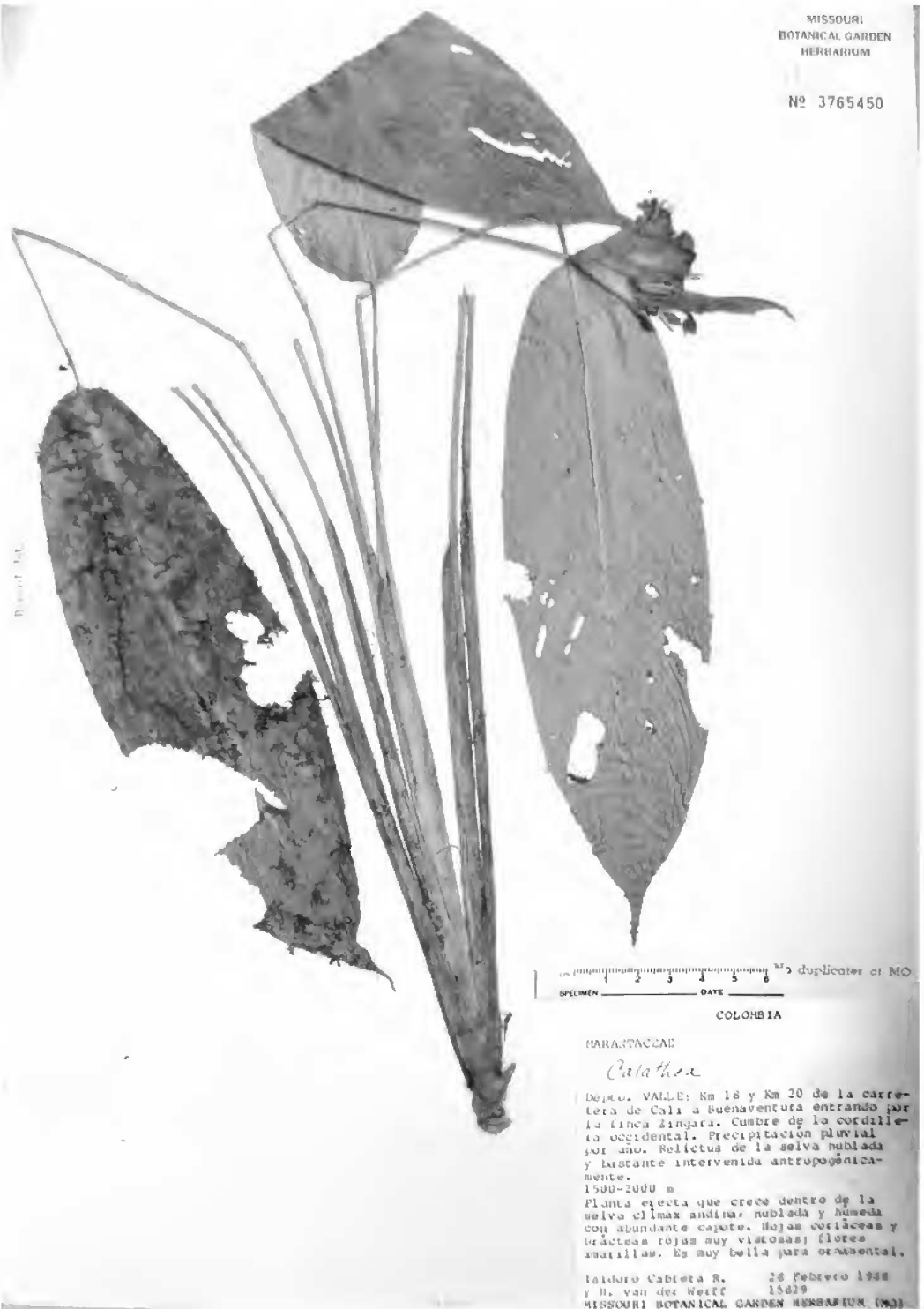


FIG. 1. *Calathea rubibracteata* H. Kenn. Holotype. (I. Cabrera & H. van der Werff 15829 MO).

base. **Leaves** 4–8 basal, none or 1 cauline, a cauline leaf or bladeless sheath borne atop a ca. 36 cm stem internode; leaf sheath not auriculate, green, wings lighter, tinged reddish, apical 1 cm subglabrous, appressed tomentose basally, the hairs more dense and longer toward the base, the hairs 0.25–1 mm, 13–17.5 cm; petiole green, tomentose in a band adaxially in apical 3–4 cm, glabrous basally, bearing a shallow groove apically, 9–23.5 cm; pulvinus articulate, noticeably thicker than petiole, olive-green or tinged with red, tomentose in a narrow band adaxially, the hairs 0.2–0.3 mm, the rest glabrous, 1–2.6 cm; leaf blade coriaceous, elliptic, apex acuminate-attenuate, base obtuse to rounded, 18.2–23.5 × 5.7–7 cm (length:width ratios 3.03–3.58:1), generally 3 minor veins between major veins, vein angle of divergence from midrib (measured at midpoint of blade) 34°–43°, 13–15 veins per 3 cm, 22–27 veinlets per 5 mm (measured at midpoint of each side of the blade), adaxial leaf surface deep green, glabrous except appressed tomentose on blade in apical 2 cm, more densely so toward apex, midrib yellowish green, minutely tomentose, the hairs faint straw-colored, 0.25 mm; abaxial leaf surface grey-green, glabrous except tuft of hairs on apicalmost 2–3 mm, midrib yellow-green, essentially glabrous except for a few sparse colorless hairs along sides in basal half, the hairs to 0.2 mm (seen at 30× magnification). **Inflorescence** terminal, 1 or 2 per shoot, first borne terminally the second in the axil of the subtending leaf or bladeless sheath, lax, turbinate, ca. 4 × 3.3 cm; peduncle red, glabrous, ca. 1 cm. **Bracts** 6–11, spirally arranged, lowermost one elliptic, upper ones broadly elliptic to broadly obovate, apex obtuse, margin and apex spreading, 2.2–2.5 × 1.6–2 cm, abaxial surface of bracts red, sericeous at very base, sparsely pilose along basal margin, the hairs 0.3 mm, adaxial surface red, glabrous, rachis sericeous; bicarinate prophyll membranous, obovate, apex obtuse, red apically, sparsely scattered pilose on distal surface of the basal half of the carina, the hairs 0.7–1 mm, ca. 2.1 × 0.65 cm, ca. 0.5 cm carina to carina; secondary bract membranous, narrowly elliptic, apex obtuse, glabrous, 1.8–1.95 × 0.5–0.65 cm; bracteoles 2 per flower pair, membranous, medial, one carinate, one channeled, narrowly elliptic, acute, glabrous, 1.55–1.7 × 0.2–0.3 cm. **Flowers** opening spontaneously, but only partially open as the petals, though separated, do not reflex. **Sepals** narrowly oblong-elliptic, obtuse, yellow apically, cream below, glabrous, 14.5–17 × 2.5–3 mm. **Corolla** yellow, glabrous, tube 16–18 mm; corolla lobes subequal, elliptic, obtuse, margins inrolled, 8.5–9 × 3.5–4.5 mm. **Staminodes** yellow; outer staminode not found in material available; callose staminode totally callose, spatulate, apex rounded to shallowly retuse, ca. 8 × 5–5.5 mm; cucullate staminode 5–5.5 mm; stamen yellow with lateral petaloid appendage to 1.5 mm wide, extending half way along the anther, anther 2 mm; style and stigma yellow, stigma blunted. **Ovary** ca. 1.5 × 1 mm. **Capsule** unknown.

*Distribution and habitat.*—*Calathea rubribracteata* is endemic to Colombia, known from the type locality in the Department of Valle de Cauca, in the Cordillera Occidental, and in cultivation in a nearby, private garden, at ca. Km 22 on the Cali to Buenaventura road. It occurs at 1500–2000 m elevation in a relictual climax Andean cloud forest. The type was collected in flower in February.

*Discussion.*—*Calathea rubribracteata* shares the general habit of several basal leaves with an inflorescence of bright red or rose-pink bracts borne above an elongate stem internode with *C. fredii*, *C. neillii*, *C. cofaniorum*, and *C. shishicoensis* from Ecuador and *C. trianae* and *C. timothei* from Colombia. It differs from *C. trianae*, *C. neillii*, *C. fredii*, and *C. cofaniorum* in the spirally arranged vs. distichous bracts and relatively wider leaf blade (length:width ratios 3.03–3.58:1 vs. 3.55–7.45), from *C. timothei* by the fewer bracts (6–11 vs. 40–ca. 100) and the usually 3 vs. 7 minor veins between the major veins, and from *C. shishicoensis* by the relatively narrower leaf blade (length:width ratios 3.03–3.58:1 vs. 1.33–1.75:1) and yellow vs. pale pink flowers. It is interesting to note that *C. timothei* lacks the outer staminode and has a blunted stigma (Kennedy 1977). Whether *C. rubribracteata* in fact also lacks the outer staminode was not clear from the material at hand, but it appeared to have a similar blunted stigma and also the non-reflexed petals. Many of these red to rose-pink bracted species are found in the upper altitudes for Marantaceae distribution, 800–2100 m, in premontane to montane cloud forest habitats.

*Etymology.*—The specific epithet, *rubribracteata*, refers to its bright red bracts.

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## REFERENCES

- KENNEDY, H. 1977. Unusual floral morphology in a high altitude *Calathea* (Marantaceae). *Brenesia* 12/13:1–9.
- KENNEDY, H. 2013. Two new endemic species of *Calathea* (Marantaceae) from Ecuador. *J. Bot. Res. Inst. Texas* 7(1):161–167.
- KENNEDY, H. 2014. *Calathea cofaniorum* and *C. shishicoensis*, new endemic species of Marantaceae from Ecuador. *J. Bot. Res. Inst. Texas* 8(1):37–42.